

Beam Power Tube

9-PIN MINIATURE TYPE
For High-Fidelity Audio-
Amplifier Applications

GENERAL DATA**Electrical:**

Heater, for Unipotential Cathode:

Voltage (AC or DC)	6.3 \pm 10%	volts	→
Current at 6.3 volts.	0.45	amp	

Direct Interelectrode Capacitances:^o

Grid No.1 to plate.	0.4 max.	μ f	→
Grid No.1 to cathode & grid No.3, grid No.2, and heater	9	μ f	
Plate to cathode & grid No.3, grid No.2, and heater	6	μ f	

Characteristics, Class A₁ Amplifier:

Plate Voltage	250	volts
Grid-No.2 Voltage	250	volts
Grid-No.1 Voltage	-15	volts
Plate Resistance (Approx.)	73000	ohms
Transconductance.	4800	μ hos
Plate Current	46	ma
Grid-No.2 Current	3.5	ma
Grid-No.1 Voltage (Approx.) for plate μ a = 100.	-40	volts

Mechanical:

Operating Position.	Any
Maximum Overall Length.	3-1/16"
Maximum Seated Length.	2-13/16"
Length, Base Seat to Bulb Top (Excluding tip)	2-7/16" \pm 3/32"
Maximum Diameter.	0.750" to 0.875"
Dimensional Outline	See General Section
Bulb.	T6-1/2
Base.	Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW.	9EU

Pin 1-Grid No.2
 Pin 2-No Connection
 Pin 3-Grid No.1
 Pin 4-Heater
 Pin 5-Heater



Pin 6-Grid No.1
 Pin 7-Grid No.3,
 Cathode
 Pin 8-Grid No.2
 Pin 9-Plate

PUSH-PULL AF POWER AMPLIFIER — Class AB₁**Maximum Ratings, Design-Maximum Values:**

PLATE VOLTAGE	440 max.	volts	→
GRID-No.2 (SCREEN-GRID) VOLTAGE	330 max.	volts	

→ Indicates a change.



GRID-No. 2 INPUT.	2	max.	watts
PLATE DISSIPATION.	12	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200 [▲]	max.	volts
BULB TEMPERATURE (At hottest point			
on bulb surface)	250	max.	°C

Typical Operation with Fixed Bias:

Values are for 2 tubes

Plate Voltage.	250	350	400	volts
Grid-No. 2 Voltage.	250	280	290	volts
Grid-No. 1 (Control-Grid) Voltage [•]	-15	-22	-25	volts
Peak AF Grid-No. 1-to-Grid-No. 1				
Voltage.	30	44	50	volts
Zero-Signal Plate Current.	92	58	50	ma
Max.-Signal Plate Current.	105	106	107	ma
Zero-Signal Grid-No. 2 Current.	7	3.5	2.5	ma
Max.-Signal Grid-No. 2 Current.	16	14	13.7	ma
Effective Load Resistance (Plate				
to plate).	8000	7500	8000	ohms
Total Harmonic Distortion.	2	1.5	2	%
Max.-Signal Power Output	12.5	20	24	watts

Typical Operation with Cathode Bias:

Values are for 2 tubes

Plate Supply Voltage	300	310	volts
Grid-No. 2 Supply Voltage	300	310	volts
Cathode Resistor	230	270	ohms
Peak AF Grid-No. 1-to-Grid-No. 1 Voltage	48	55	volts
Zero-Signal Plate Current.	80	77	ma
Max.-Signal Plate Current.	96	92	ma
Zero-Signal Grid-No. 2 Current.	6	5	ma
Max.-Signal Grid-No. 2 Current.	14	14	ma
Effective Load Resistance (Plate			
to plate).	5500	6000	ohms
Total Harmonic Distortion.	2	4	%
Max.-Signal Power Output	15	17	watts

Maximum Circuit Values:

Grid-No. 1-Circuit Resistance:[•]

For fixed-bias operation	0.5	max.	megohm
For cathode-bias operation	1	max.	megohm

PUSH-PULL AF POWER AMPLIFIER — Class AB₁

Grid No. 2 of each tube connected to tap on plate winding of output transformer

→ **Maximum Ratings, Design-Maximum Values:**

PLATE AND GRID-No. 2 (SCREEN-GRID)

SUPPLY VOLTAGE	410	max.	volts
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→ Indicates a change.